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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,395

04/27/2007

Alain Boucly

88851SLP

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70523

7590

09/25/2008

Carestream Health, Inc.
Patent Legal Staff
150 Verona Street
Rochester, NY 14608

EXAMINER

VU, MINDY D

ART UNIT

PAPER NUMBER

2884

MAIL DATE

DELIVERY MODE

09/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,395	Applicant(s) BOUCLY ET AL.	
	Examiner MINDY VU	Art Unit 2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,21,26,42,60,67,74,87,101 and 111 is/are pending in the application.
- 4a) Of the above claim(s) 21,26,42,60,67,74,87,101 and 111 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/22/06 & 12/18/07</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

This Office Action is in response to Applicant's application filed April 27, 2007.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1, drawn to an electronic module encapsulated in a case.

Group II, claim(s) 21, drawn to a sequencer being integrated on the same substrate as the array.

Group III, claim(s) 26 and 42, drawn to a signal corrector to compensate in the digital output signal for any drifts in the array.

Group IV, claim(s) 60 and 67, drawn to a generator of a sampling signal synchronized with at least one analog electrical signal.

Group V, claim(s) 74 and 87, drawn to means for applying at the detector's input an input reference signal and means for producing an output signal from the array's read signal and an output reference signal.

Group VI, claim(s) 101 and 111, drawn to reading in the digital output signal and comparison of the data values.

.The inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: as seen above there is no identical or corresponding feature among the groups.

During a telephone conversation with Susan Parulski on September 17, 2008 a provisional election was made with traverse to prosecute the invention of Group I, claim 1. Affirmation of this election must be made by applicant in replying to this Office action.

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Claims 21, 26, 42, 60, 67, 74, 87, 101 and 111 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carroll et al. (US 6,404,854, hereafter Carroll) in view of Spartiotis et al. (US 2004/0000630,

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hereafter Spartiotis) and further in view of Suzuki et al. (US 5,572,566, hereafter Suzuki).

With respect to independent Claim 1, Carroll discloses a dental radiology apparatus (abstract), characterized in that it comprises:

an intraoral sensor comprising a detector that includes an active pixel array produced using biCMOS technology (Col. 1 lines 45-52) and converting received x-rays into at least one analog electrical output signal (Col. 3 lines 25-31),

a remote processing (computer 81) and display unit 81c of said at least one digital output signal which is linked to the interface electronics 85 by a wire link 82 intended to ensure the transmission to the unit of said at least one digital output signal (Figs. 8A and 8B).

Carroll does not disclose an electronic module encapsulated in a case and the module being linked to the sensor by a wire link for the transmission to said sensor. However, Carroll suggests an intermediate connection point 85 between sensor 83 and computer 81 as shown in Fig. 8B. This interface electronics 85 being linked to the sensor 83 and the computer 81 via a cable (Col. 5 lines 48-59). On the other hand, Spartiotis discloses a high energy imaging system for use in the same field of the invention comprising an electronic module (Fig. 2, control electronics 24) encapsulated in a case as shown in Fig. 17 which is connected with individual cells 18 for reading out charge accumulated in the cell circuits 20 and the charge readout is supplied to Analog to Digital Converters for digitization (Fig. 2 & paragraph 0083). Therefore, it would have

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been obvious to one of ordinary skill in the art at the time of the invention was made to modify the intermediate connection point 85 of Carroll with the electronic module 24 of Spartiotis in view of processing the signals and communication between the sensor and the remote station.

The electronic module as disclosed in Spartiotis omits at least one detector activation device. Suzuki discloses a switch 21 is known in the art for activating the system to obtain an X-ray image of an intraoral region (Fig. 4 & Col. 10 line 60- Col. 11 line 10). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to include at least one detector activation device in the electronic module in view of improving in managing the detection system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINDY VU whose telephone number is (571)272-8539. The examiner can normally be reached on M-F 9am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mv

/David P. Porta/

Supervisory Patent Examiner, Art Unit 2884